intelligence which must have been originated by some monkey, since no lower or ancestral type of Mammals possess the hands necessary for its accomplishment. Whether originated by Jack, or by some ancestor of the forest who used vines for the same purpose, cannot be readily ascertained.

After a punishment, the animal would only exert himself in this way when not watched; as soon as an eye was directed to him, he would cease. In this he displayed distrust. He also usually exhibited the disposition to accumulate to be quite superior to hunger. Thus he always appropriated all the food within reach before beginning to eat. When different pieces were offered to him, he transferred the first to his hind feet to make room for more; then filled his mouth and hands, and concealed portions behind him. With a large piece in his hands, he would pick the hand of his master clean before using his own, which he was sure of.

April 16.

Mr. Vaux, Vice-President, in the chair.

Twenty-three members present.

The following paper was presented for publication:—

"Studies of the Tyrannidæ. Part I. Revision of the Species of Myiarchus." By Elliott Coues.

April 23.

The President, Dr. Ruschenberger, in the chair.

Twenty-one members present.

The following paper was presented for publication:—

"Catalogue and Synonymy of the Family Lucinidæ." By Geo. W. Tryon, Jr.

Prof. P. Frazer, Jr., noticed a granular sediment at the bottom of several bottles of water from the Geyser Spring, Saratoga, and on taking them out they proved to be phanero-crystalline individuals of peculiar form. This form seemed at first sight to be that of the sphenoid or wedge-shaped hemi-pyramids of one of the tetragonal or rhombic systems. On testing the crystals they proved to be nothing else than carbonate of lime, and the difficulty lay in making their habitus and composition harmonize. Arragonite crystals they certainly were not, and if they were calcites it is evident that they could not be sphenoids.

On a closer examination it turned out that they were acute rhombohedrons with four planes largely and the other two planes only very minutely developed, thus giving to the crystal the appearance of a tetrahedron or sphenoid, two of whose angles were truncated by small planes.

It suggested itself as a means of obtaining crystals from a saturated carbonic acid solution of those substances not readily soluble in pure water, to allow the gas to escape uniformly but slowly, and thus allow each crystal time to complete its complement of planes.

APRIL 30.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-nine members present.

The death of Wm. W. GERHARD, M.D., was announced.

The following were elected members: Geo. Stiles, M.D., Passmore Williamson, Bloomfield H. Moore, Mrs. Bloomfield H. Moore, Alfred D. Jessup, Wm. F. Miskey, Wm. G. Freedly, F. B. Gowen, E. Burd Grubb, Thos. R. Dunglison, M.D., and John Thompson.

Permission being granted, Dr. H. ALLEN called attention to a novel method of studying the appendicular skeleton of vertebrates. He had found that a radiated arrangement of bones could be detected in the shoulder girdle. The recognition of such a plan suggested the propriety of characterizing rays as divergent from a hypothetized centre with respect to their positions to the longitudinal axis of the body. The scapula thus becomes the *neurad;* the pre-coracoid and coracoid bones the *heamad;* while the ray of the arm is the *manad.* The neurad ray is single and may segment twice, as in some batrachians, or but once, as in others of the same class. The heamad rays never segment. They may be single or double. The manad rays are multiple in fishes, and may not diverge from a single point. In *Gobius* some of these rays appear as actinapophyses to the neurad rays.

The manad rays are single in other vertebrates. They do not segment in fishes, but may twice segment ("glenoid"-brachium) with other forms. It is necessary to remember that the centre of this radiate arrangement is not at all times at the shoulder-joint, but may be at a point at which the "glenoid" (Parker) scapular, pre-coracoid, and coracoid bones converge. This is instanced in man and the salamander.

The study of the pelvic girdle yields similar results to those above stated. The centre here is at the acetabulum. The neurad ray (ilium), the two heamads (pubis and ischium), as well as the